

## A NEW GENUS AND SPECIES OF RHOPALOMERIDAE FROM NORTHWESTERN MEXICO (DIPTERA)

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Some years ago George E. Bohart presented the writer with a remarkable fly that was clearly a rhopalomerid, but which did not agree with any described species nor fit in any genus. In the interim it has become apparent that a new genus would have to be erected for the species. It is therefore described at this time as a new species belonging to a new genus. It was captured in the State of Sonora, Mexico, several hundred miles from the limits of the previously known distribution of its family, which is restricted to tropical and subtropical America, north to southern Florida (*Rhytidops floridensis* [Aldrich], v. Malloch, 1941) and Volcán de Colima, Mexico (*Willistoniella pleuropunctata* [Wied.], v. Lindner, 1930).

### MEXICOA, new genus

Differs from the described genera most obviously in the densely plumose arista, the hairs of which are black and flattened. The genus is further characterized by the presence of distinct vertical, ocellar, and postvertical bristles; flat upper face; convex, 4-bristled, short scutellum lying in the same plane as the mesonotum; broad cheeks; 5-6 long, stout, upper metaspiracular hairs; and the lack of humeral bristles.

In the generic keys of Curran (1934, p.300) and Lindner (1930, p.125) *Mexicoa* runs to couplet 4 in each case, but differs from *Apophorhynchus* by the presence of strong ocellar and postvertical bristles, from *Willistoniella* by the non-carinate face and non-projecting front, and from both by the character of the arista. In the key of Malloch (1941, p.50) it runs to couplet 3, but differs from *Apophorhynchus* as mentioned and from *Rhytidops* by the plumose arista, non-projecting front, and lack of antennal grooves.

Generotype, the following new species.

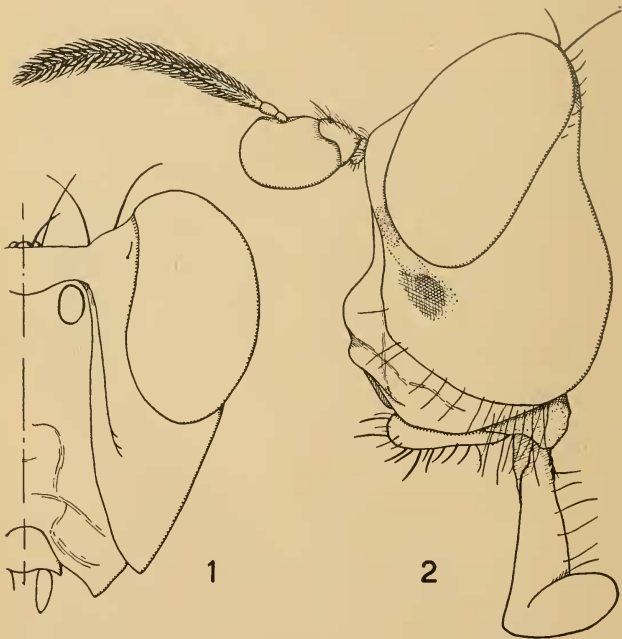
### *Mexicoa mexicana*, new species

*Male.* Length of body and wing, each 7 mm.

Head as figured, generally brown in color, the broad cheeks almost yellow, ocellar region and upper occiput dark brown. The third antennal joint is blackish above and at tip. The occiput is largely shining, with a white-pruinose stripe from eye to neck, a similar spot below the lateral end of the stripe, and another similar elongate mark farther ventrad, which extends well onto the cheek and which appears in most lights as a pair of spots. On either side of the ocellar triangle is yellowish pruinosity which extends backward as a stripe on either side of the cerebral area. Anterior to the ocelli is a triangle of white pruinosity which

extends halfway to the frontal margin. The anterior frontal orbits are very narrowly white-pruinose and there are a pair of white-pruinose spots on each parafacial. The anterior half of the cheeks and the entire face is dully pruinose, with a more lucid spot under each antenna. The prelabrum is also pruinose, at least anteriorly. The palpi are yellowish. Arista as figured, the flattened plumose hairs black, the base of the arista itself yellowish. Eyes bare. Head, except face and ocellar region, covered with rather coarse yellowish hairs; only a few upper postocular ciliae, small hairs on the basal antennal joints, and a single one in the middle of the lower side of the palpi, black. The bristles, as follows, are black: one inner and one outer vertical, one postvertical, one fine ocellar, one minute frontal.

Thorax dark brown. The peculiar laterally concave humeri are shining, as are also the upper pleural regions. The pleura, however, rapidly grade into the strong whitish pruinosity of the pectus. The thoracic



*Mexicoa mexicana*, new genus and species. Anterior view of left half (Fig. 1) and left profile of head (Fig. 2).

dorsum is covered with a fine tomentum which gives it a strongly pruinose appearance of a clayey yellow color with a pair of dark brown dull spots on each side, one a short distance before the transverse suture and one an equal distance behind, as well as a pair of adjacent discal brown spots between the wing bases. The scutellum is shining at the extreme tip, but is otherwise furnished with a vestiture similar to the mesonotum, clayey yellow laterally and basally, and brown in the middle toward the apex. There is a small shining depression at each mesal end of the transverse suture. An indistinct middorsal dark stripe is visible at the anterior end of the mesonotum. The mesonotum is furnished with numerous short, stubbly, scattered setulae. There are longer black hairs on the notopleura, posterior mesopleura, pteropleura beneath the wings, and a few at the upper end of the lateral metanotal callus. Long pale yellowish hairs, white toward the pectus, are present on the humeri, propleura, sparsely above the fore coxae, and densely on the prosternum, sternopleura and pectus. There is a group of five or six long bristly hairs on the upper side of the metathoracic spiracle. There are no hairs on the protuberances just below the wing base. True bristles are present on the thorax as follows: 2 notopleural, 1 supra-alar, 2 postalar, 3 on each side just anterior to base of scutellum, 1 apical scutellar, 1 preapical scutellar somewhat dorsal in position, 1 strong mesopleural, 1 sternopleural.

Legs with coxae, especially the fore ones, covered with white pruinosity and furnished with white hairs; femora subshining, more pruinose above and preapically, the fore and middle femora with white hairs basiventrally, otherwise with numerous black hairs; fore femora with 3 or 4 heavy apical anteroventral bristles, the middle femora with 4 or 5 such posteroventrally and 7 or 8 anteroventrally, the hind femora with a complete, somewhat irregular row of more than a dozen such anteroventrally and about 4 posteroventrally; tibiae cream yellow at base, especially middle and hind ones, and without distinct bristles, but with many black hairs; tarsi cream-colored basally, brown apically, with black hairs above and creamy yellow plantar brush. All the femora are strongly swollen, the middle ones gently concave above. The middle femora have two small apical bristles and the hind femora have a group of about 6 preapical anterodorsal bristles. The hind tibiae are somewhat compressed beyond the basal pale part, but are only half as thick as the hind femora, not distinctly carinate above and without distinct bristles, but with several erect, long hairs.

Wings brownish, with a strong brown spot around the anterior crossvein, rather darker at the ends of veins 2 and 3, and with an indistinct transverse band from the tip of the auxiliary vein to the end of the second basal cell; the discal cell and a wide area either side of the anterior crossvein is practically hyaline. The wing veins are yellowish at the base of the wing, otherwise blackish. The venation is very similar to that figured for *Rhopalomera* by Williston (1908, p.280) and copied by Curran (1934, p.299), but the anterior crossvein is a little closer to

the tip of the first vein and the anal vein is complete to the wing margin. The squamae and their fringes and the halteres are cream-colored.

The abdomen is short and rather broad basally, dark brown in color, grayish pruinose with an indistinct brownish mid-dorsal stripe, and furnished evenly with longish mixed black and whitish hairs, the longer of which are whitish. The hypopygium is semi-globose, shining reddish-brown.

*Holotype*, male, Rio Mayo, Sonora, Mexico, No. 58337 in the United States National Museum.

#### LITERATURE CITED

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### A NEW AEADES FROM THE FLORIDA KEYS (DIPTERA, CULICIDAE)

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It is to be regretted that this species must be described from females only. However, it is so distinct from anything occurring in North America or from anything known to me in the tropics that it needs to be named. The specimens were taken in light traps at Key West and Marathon. The Key West trap is operated by Mr. Eddie Fernandez and the Marathon trap by Mr. C. G. Hicks. The Public Health Service is grateful to these men for their generous assistance. I also wish to thank Dr. Alan Stone of the U. S. National Museum for his opinion regarding the taxonomic status of this species.

#### *Aedes* (*Ochlerotatus*) *keyensis*, n. sp.

*Female*: Average body length, 4.0 mm.; proboscis, 2.0 mm.; palpi, 0.45 mm.; thorax, 1.5 mm.; wings, 3.0 mm.

Proboscis and palpi dark brown scaled. Occiput with pale, nearly white, erect, and appressed scales on vertex, the erect scales rather slender and scarcely if at all bifurcate at tip. An area behind each eye with dark, broad, appressed scales. Mesonotum with long, slender, pale amber scales, a broad median stripe of slightly more brownish scales usually noticeable. Pleura with white bristles and broad white scales. Abdominal dorsum dark brown scaled, with broad basal white bands of broad scales; the bands prolonged medially for at least two thirds of the segments' length so that the abdomen has the appearance of having a broken longitudinal stripe. Basal bands not reaching the lateral white